OpenJDK 7

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2009/2/7 — FOSDEM 2009
OpenJDK 7

What
How
When
Who
You
Features

{ Sun

Others }
PROVISIONAL

Features

Sun

Others

SUBJECT TO CHANGE
Features from Sun: Big

- Modularization (JSR 294 + Jigsaw)
- JSR 292: VM support for dynamic languages
- JSR 203: More New I/O APIs
- JSR TBD: Small language changes
- JSR 296: Swing Application Framework
- Forward-port 6u10 features
  > Java Kernel, Quickstarter, New Plug-In, etc.
Features from Sun: Small

- SCTP (Stream Control Transmission Protocol)
- SDP (Sockets Direct Protocol)
- Upgrade class-loader architecture
- Method to close a URLClassLoader
- Unicode 5.0 support
- Swing updates
  - JXLayer, DatePicker, CSS styling — maybe
Features from Sun: Fast

• Yet more HotSpot run-time compiler enhancements
• G1 garbage collector
• Compressed-pointer 64-bit VM
Features from others

• XRender Pipeline for Java 2D
  > Clemens Eisserer

• JSR 308: Annotations on Java Types
  > Prof. Michael Ernst, Mahmood Ali

• Concurrency and collections updates
  > Doug Lea, Josh Bloch, et al.
  > Fork/join framework
  > Phasers — Generalized barriers
  > LinkedTransferQueue — Generalized queue
  > ConcurrentReferenceHashMap
  > Fences — Fine-grained read/write ordering
Features not in 7*

• Closures
• Other language features
  > Reified generic types
  > First-class properties
  > Operator overloading
  > BigDecimal syntax
• JSR 295: Beans Binding

* Well, at least some of them
How: Milestone-based schedule

• New Milestone (M1, M2, ...) every 6-8 weeks
  > Synchronized with QA cycles
  > Last two weeks are for stabilization
  > Later cycles have longer stabilization periods
    – Final cycle likely entirely for stabilization

• Features
  > Will be targeted to specific milestones
    – Few will be scheduled for the final pre-freeze cycle
  > Will be integrated when (nearly) complete
    – No dribbling code in over time
# When: Schedule*

<table>
<thead>
<tr>
<th>M1</th>
<th>2009/2/23</th>
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<tbody>
<tr>
<td>M2</td>
<td>2009/4/13</td>
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<td>2009/6/1</td>
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<td>M4</td>
<td>2009/7/20</td>
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<td>2009/9/7</td>
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<td>2010/3/10</td>
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* Dates & details still subject to fine tuning
Who: Team structure (DRAFT)

- **Release Team**
  - Owns feature list, controls change, delivers the release
  - MR, Joe Darcy, Paul Hohensee, Phil Race, Vita Santrucek

- **Change-Review Team = Release Team ++**
  - Reviews all API/interface/compatibility changes
  - Reviews code (sometimes)
  - Broad group of senior engineers
    - Including key non-Sun contributors

- **Implementation Teams**
  - One per feature
  - Cross-functional (dev, qa, jck, docs, ue)
You can help!

• Review changes
  > Subscribe to -dev lists of interest
  > Participate in code reviews
    – [http://cr.openjdk.java.net](http://cr.openjdk.java.net)
    – Thanks: Tim Bell

• Build and test
  > Especially on platforms that Sun doesn’t cover

• Submit fixes, enhancements, & features
  > [http://hg.openjdk.java.net/jdk7/jdk7/…](http://hg.openjdk.java.net/jdk7/jdk7/…)
  > [http://bugs.openjdk.java.net](http://bugs.openjdk.java.net)
Poll question @ FOSDEM 2008

Bugzilla

or

JIRA?
http://bugs.openjdk.java.net

• Brand-new Bugzilla instance
  > Thanks: Brad Wetmore

• Now: For submitting and tracking patches against OpenJDK 6 and 7
  > Create bug, attach patch
  > Set sponsor flag to “?”
  > Current committers can then consider sponsoring your patch

• Later: For submitting and tracking all bugs
  > First need to build a bridge to Sun’s internal legacy systems
jdk7-dev@openjdk.java.net

http://openjdk.java.net/projects/jdk7
OpenJDK 7

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